## **Recovery Plan Action Status**

Plan Name: Kirtland's Warbler Recovery Plan, Updated

Plan Status: Final Revision 1

Plan Date: 30-Sep-85 Lead Agency: USFWS

Lead Office: East Lansing Ecological Services Field Office 351-2555)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Kirtland's Warbler (Dendroica kirtlandii)	1	1.111	Fire Control	Ongoing Current	Prior to FY 1995		U.S. Forest Service, Michigan Department of Natural Resources, State agencies, Michigan Department of Military Affairs	Management: Land Use	Labor type not yet selected	FY 1986-1988 Costs for 1.11 subtasks are unpredictable and will depend upon the annual need for such work
Kirtland's Warbler (Dendroica kirtlandii)	1	1.112	Insect/disease control	Unknown			U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, Michigan Department of Natural Resources	Work type not yet selected	Labor type not yet selected	FY 1986-1988 Costs for 1.11 subtasks are unpredictable and will depend upon the annual need for such work
Kirtland's Warbler (Dendroica kirtlandii)	1	1.12	Improve habitat	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, U.S. Forest Service, Michigan Department of Natural Resources	Management: Habitat Maintenance and Manipulation	Contract	Annual operational habitat management on approx 2,000 - 2,500 ac federal and state forest. Commercial clear cut, optional prescribed burn, followed by planting/seeding reforestation. High costs borne by USFS and Michigan DNR.
Kirtland's Warbler (Dendroica kirtlandii)	1	1.13	Establish new habitat	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, U.S. Forest Service, Michigan Department of Natural Resources	Management: Habitat Maintenance and Manipulation	Labor type not yet selected	Cost increases as new acquisitions undergo initial management
Kirtland's Warbler (Dendroica kirtlandii)	2	1.14	Revise and update management plan	Partially Complete	Prior to FY 1995	FY 2000 - FY 2004	U.S. Forest Service, Michigan Department of Natural Resources	Management: Planning	Internal Administrative	US Forest Service and Michigan DNR revised habitat management plans in 2004.

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Kirtland's Warbler (Dendroica kirtlandii)	3	1.2	Technical assistance to private landowners	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, Michigan Department of Natural Resources	Work type not yet selected	Labor type not yet selected	
Kirtland's Warbler (Dendroica kirtlandii)	2	1.3	Manage habitat at Camp Grayling - prepare and implement plan	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Michigan Department of Natural Resources, Michigan Department of Military Affairs	Work type not yet selected	Labor type not yet selected	Plan to be completed in FY 85 and 86. Implementation to begin in FY 87
Kirtland's Warbler (Dendroica kirtlandii)	1	1.4	Acquire key tracts	Partially Complete	Prior to FY 1995		U.S. Fish and Wildlife Service, U.S. Forest Service, Michigan Department of Natural Resources, U.S. Fish and Wildlife Service - Endangered Species, Realty	Acquisition	Internal Administrative	FWS has acquired approx 6000 acres, administered by Seney NWR in cooperation with Michigan DNR
Kirtland's Warbler (Dendroica kirtlandii)	3	1.5	Information and education	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, Michigan Department of Natural Resources	Other: Information and Education	Internal Field Assistance	
Kirtland's Warbler (Dendroica kirtlandii)	1	1.6	Meet research needs (individual research items are listed and tentatively prioritized in Appendix A. See comments)	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, U.S. Forest Service, USFWS Research	Research	Internal Field Assistance	Research has been ongoing. Current research (2006) in Bahamas on winter habitat characterization and use by USFS, TNC and Bahamas National Trust. Additional isotope analysis for winter hab work in coop with Smithsonian.
Kirtland's Warbler (Dendroica kirtlandii)	1	1.71	Identify stocked areas and areas needing planting and sanitation	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, Michigan Department of Natural Resources	Work type not yet selected	Labor type not yet selected	

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Kirtland's Warbler (Dendroica kirtlandii)	3	1.72	Improve cultural treatments for habitat development	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, Michigan Department of Natural Resources	Work type not yet selected	Labor type not yet selected	Begin in FY 88. Follow-up evaluation needed in subsequent years
Kirtland's Warbler (Dendroica kirtlandii)	1	2.11	Locate and monitor wintering populations	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, Endangered Species Division, To be determined, USFWS Research	Research	Internal Field Assistance	Winter studies underway. Coop by USFS Inst. Tropical Forestry, TNC, Bahamas National Trust
Kirtland's Warbler (Dendroica kirtlandii)	1	2.12	Delineate wintering habitat	Not Started			USFWS Research	Work type not yet selected	Labor type not yet selected	Work begun in FY85
Kirtland's Warbler (Dendroica kirtlandii)	1	2.122	Establish cooperative programs to protect essential wintering habitat	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, U.S. Forest Service, Michigan Department of Natural Resources	Other	Internal Administrative	Relationship established with Bahamas gov and Bahamas National Trust. Assist by US Forest Service, Mich DNR, The Nature Conservancy. Bahamas member appointed to Recovery Team.
Kirtland's Warbler (Dendroica kirtlandii)	2	2.123	Monitor land use changes on wintering grounds	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, To be determined	Work type not yet selected	Labor type not yet selected	After base maps prepared, \$3,000 annually for monitoring beginning in FY 89
Kirtland's Warbler (Dendroica kirtlandii)	1	2.124	Determine winter mortality factors	Not Started			USFWS Research	Work type not yet selected	Labor type not yet selected	Cost est. included in 2.122, above
Kirtland's Warbler (Dendroica kirtlandii)	1	2.125	Implement measures to reduce mortality	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, To be determined, U.S. Fish and Wildlife Service, Office of Endangered Species	Work type not yet selected	Labor type not yet selected	FY 1988 Cost estimate TBD.

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Kirtland's Warbler (Dendroica kirtlandii)	1	2.21	Determine migration route	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, State agencies, USFWS Research	Management	Internal Technical Assistance	Priority number TBD. Need for 2.2 tasks will be evaluated following completion of wintering ground survey
Kirtland's Warbler (Dendroica kirtlandii)	1	2.22	Protect essential sites	Partially Complete	Prior to FY 1995		U.S. Fish and Wildlife Service, U.S. Forest Service, Michigan Department of Natural Resources, Michigan Department of Military Affairs	Management: Land Use	Internal Administrative	Nearly all essential breeding habitat is on public land, national and state forest. Protection of winter habitat remains uncertain.
Kirtland's Warbler (Dendroica kirtlandii)	1	2.23	Eliminate or reduce adverse factors during migration	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, To be determined	Work type not yet selected	Labor type not yet selected	Priority number TBD. Need for 2.2 tasks will be evaluated following completion of wintering ground survey
Kirtland's Warbler (Dendroica kirtlandii)	3	3.11	Provide I&E program	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, Michigan Department of Natural Resources, Wildlife Assistance Division	Other: Information and Education	Internal Field Assistance	
Kirtland's Warbler (Dendroica kirtlandii)	1	3.121	Protect occupied nesting area	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, Michigan Department of Natural Resources	Management: Land Use	Internal Administrative	
Kirtland's Warbler (Dendroica kirtlandii)	3	3.122	Cooperative agreements to close private lands	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, Michigan Department of Natural Resources	Work type not yet selected	Labor type not yet selected	
Kirtland's Warbler (Dendroica kirtlandii)	1	3.123	Regulate Nat'l Guard activities via review and revision of coop agreement	Partially Complete	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, Michigan Department of Natural Resources	Work type not yet selected	Labor type not yet selected	Biennial

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Kirtland's Warbler (Dendroica kirtlandii)	2	3.13	Eliminate take	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, Michigan Department of Natural Resources	Work type not yet selected	Labor type not yet selected	
Kirtland's Warbler (Dendroica kirtlandii)	1	3.21	Maintain cowbird control	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, Endangered Species Division	Management: Predator and Competitor Control	Internal Field Assistance	Cowbird control conducted by East Lansing Field Office required annually. Annual cost estimate \$100,000 - \$125,000. Jeopardized by current funding shortage.
Kirtland's Warbler (Dendroica kirtlandii)	3	3.22	Identify and control parasites, predators, etc.	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Michigan Department of Natural Resources, USFWS Research	Work type not yet selected	Labor type not yet selected	Estimate that 50K will be needed for this research. Costs for control TBD
Kirtland's Warbler (Dendroica kirtlandii)	1	3.3	Monitor and evaluate control programs	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Michigan Department of Natural Resources, Wildlife Assistance Division	Work type not yet selected	Labor type not yet selected	Costs shown are for cowbird control program only. Costs for other control programs resulting from 3.22 will be determined at a later date.
Kirtland's Warbler (Dendroica kirtlandii)	1	4.1	Survey singing males on nesting range	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, U.S. Forest Service, Michigan Department of Natural Resources	Management	Internal Field Assistance	Census of singing males conducted annually June 6 - 14. Lead agency Michigan DNR.

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Kirtland's Warbler (Dendroica kirtlandii)	3	4.2	Survey in similar habitats	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, Michigan Department of Natural Resources, Ontario Ministry of Natural Resources, Minnesota Department of Natural Resources, Wisconsin Department of Natural Resources, Wisconsin	Management: General	Internal Field Assistance	
Kirtland's Warbler (Dendroica kirtlandii)	1	4.3	Evaluate data, prepare reports	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, Michigan Department of Natural Resources	Management	Internal Technical Assistance	
Kirtland's Warbler (Dendroica kirtlandii)	1	5.1	Develop captive breeding and release techniques	Obsolete			Ohio coop unit	Work type not yet selected	Labor type not yet selected	\$67K in FY 89
Kirtland's Warbler (Dendroica kirtlandii)	3	5.2	Develop cross- fostering techniques	Obsolete			U.S. Fish and Wildlife Service, USFWS Research	Work type not yet selected	Labor type not yet selected	Priority number will be revised if planned research under 5.1 and 5.3 are unsuccessful.
Kirtland's Warbler (Dendroica kirtlandii)	1	5.3	Develop captive wintering techniques	Obsolete			Ohio coop unit	Work type not yet selected	Labor type not yet selected	Costs included with those for 5.1
Kirtland's Warbler (Dendroica kirtlandii)	1	5.4	Identify suitable release sites and implement emergency measures	Obsolete			U.S. Fish and Wildlife Service, To be determined	Work type not yet selected	Labor type not yet selected	Work will begin following completion of 5.1, 5.2, or 5.3. Costs TBD
Kirtland's Warbler (Dendroica kirtlandii)	1	5.5	Implement emergency measures	Obsolete			U.S. Fish and Wildlife Service, To be determined	Work type not yet selected	Labor type not yet selected	